

APPARATUS FOR, AND METHOD OF, VARYING THE  
RATE OF FLOW OF FLUID ALONG A PATHWAY

ABSTRACT

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10 An apparatus for varying the rate of flow of a fluid in a pathway by the use of  
deformable valves and clamps which change their size, position, state or function on  
application of heat and/or pressure is described. A disposable chemical assay device  
(10), and a method of using the device incorporating the apparatus are also described.  
The assay device (10) includes an inlet port (12), a reaction chamber (14), a waste  
depot (16), a filter chamber (18), a processing chamber (20), wash solution/reagent  
reservoirs (22) and (24), an array of metered readout cells (26, 28, 30 and 32), and  
15 breather tubes (11 and 13). The invention, in a preferred embodiment, offers an  
advantage over existing assay devices because the condition or state of the deformable  
valves and clamps may be changed. Therefore more complex operations and  
procedures may be performed by the assay device (10) than has been previously  
achievable.

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(Figure 1)